



SOUTH NATION
CONSERVATION
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Fish and Wildlife Committee Update

September 4th, 2018



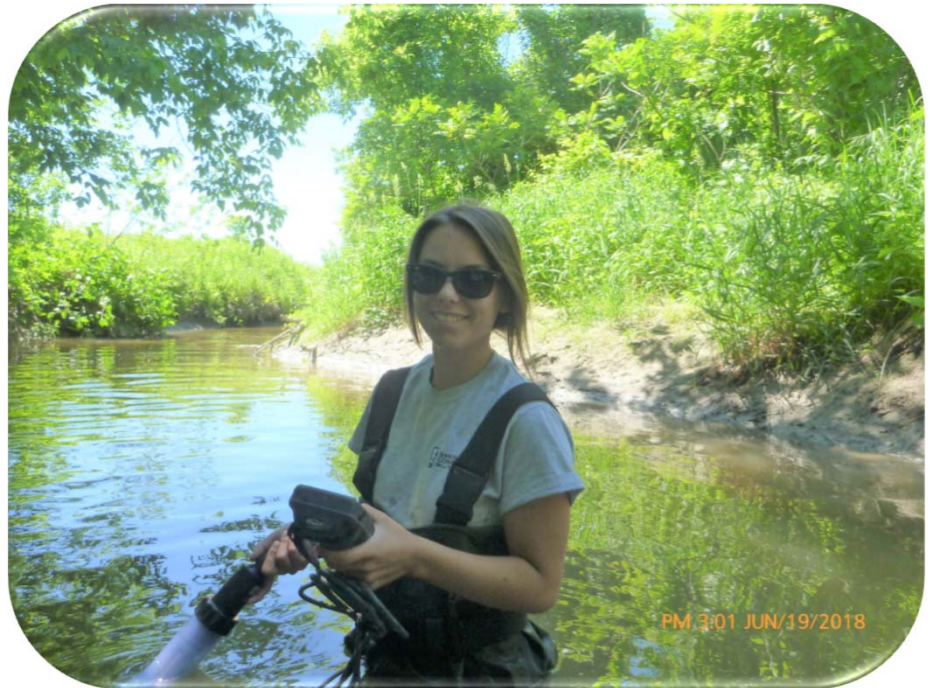
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2018 Summer Students



Britney Bourdages, Invasive Species Liaison



Alexa Ouellette, Stewardship Student

Michelle Cavanagh, Team Lead, Stewardship



Annual Bus Tour

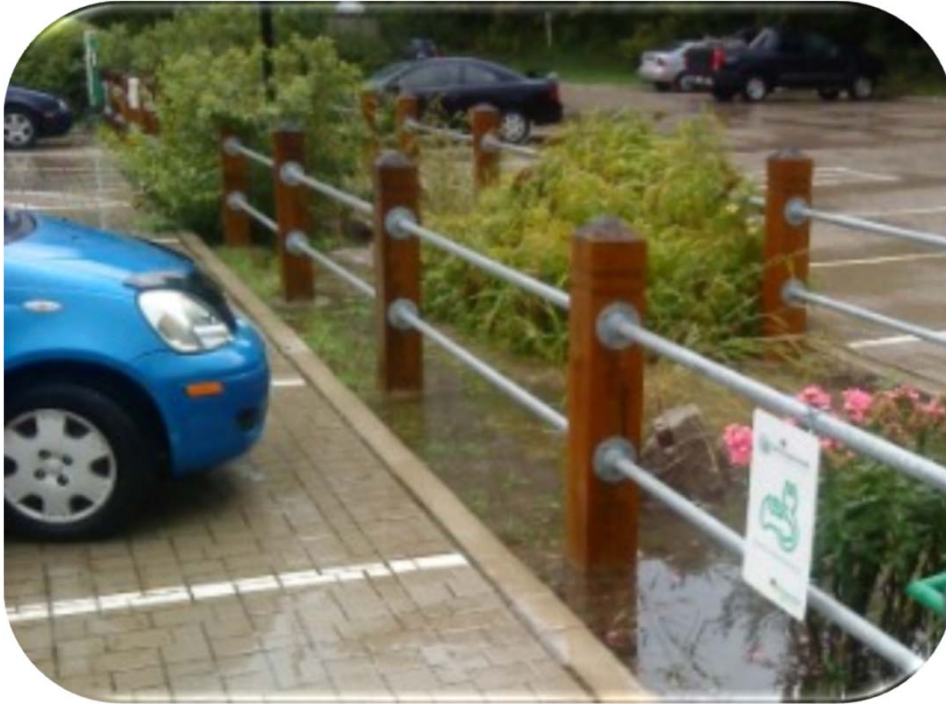


2016 Annual Tour, Blom Property, North Dundas

- Tuesday, September 18th, 8 am – 4 pm
- \$15/person, includes lunch
- Book your spot by contacting Kelsey Smith at 1-877-984-2948, ext. 313, or ksmith@nation.on.ca
-



Low Impact Development



- SNC organizing conference in Ottawa, November 6-8, 2018
- Geared towards Conservation Authorities, Municipalities, Consultants, Developers



Community Outreach

Youth Fishing Camp Success



<https://www.youtube.com/watch?v=zZhLSex25Qc>



Monitoring Water Quality



Grab sample destined for metal analysis

- 13 Provincial Water Quality Monitoring Network sites across the watershed
- 8 City of Ottawa Baseline sites in the Bear Brook and Castor River catchments



North Castor Catchment Study



Baseflow Sampling in Shield's Creek

- Stations sampled throughout Findlay Creek, Shield's Creek and the North Castor River
- Monitoring includes: Water Quality, Water Quantity and Biology



Grass Buffer Demonstration Site



Grass Buffer Demonstration Site/South Castor Municipal Drain after heavy rains



Findlay Creek Clean-up



Findlay Creek clean-up team

- Partnership with Water Rangers
- Collected 103 lbs of garbage



Restoring our Natural Spaces



Red Pine stump flipped to its side to create wind-throw

Ontario Power Generation: Larose Biodiversity

- 100+ stumps flipped over to re-create wind throws
- 1,400 native trees, shrubs and flowers to be planted



Restoring our Natural Spaces



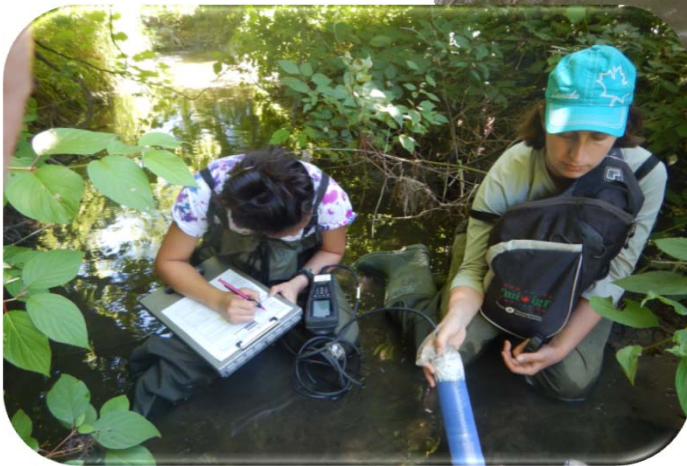
Robert Graham Conservation Area
South Dundas

Invasive Control

- Using systemic herbicide to control buckthorn and phragmites at **Robert Graham Conservation Area**
- Hand-pulling phragmites and cutting off the seed bearing tops to slow down dispersal at the **Leitrim Wetland**



Stream Watch



- Stream Clean: August 23, 2018
- 16 volunteers
- 5.3 kilometers assessed
- Positive volunteer and landowner response



Unionid Brail

IT WORKS !!!



South Nation River, Inkerman





Riverside Cedar Campground

- 15 Sites for 2018
- 4 sites morphed and fished
- 11 sites remaining
- Significant rainfall needed to fill the creek beds.



Municipal Drain Classifications - 2018



Northern Pike
York Municipal Drain
Embrun, ON

- SNC will be classifying 6 currently 'not rated' municipal drains this fall
- Funding is from Fisheries and Oceans Canada (DFO)



Floodplain and Structure Surveying



Surveying bridges and culverts
City of Ottawa

- Stewardship staff have been completing surveying tasks for SNC
- Data is used for floodplain mapping and infrastructure assessment



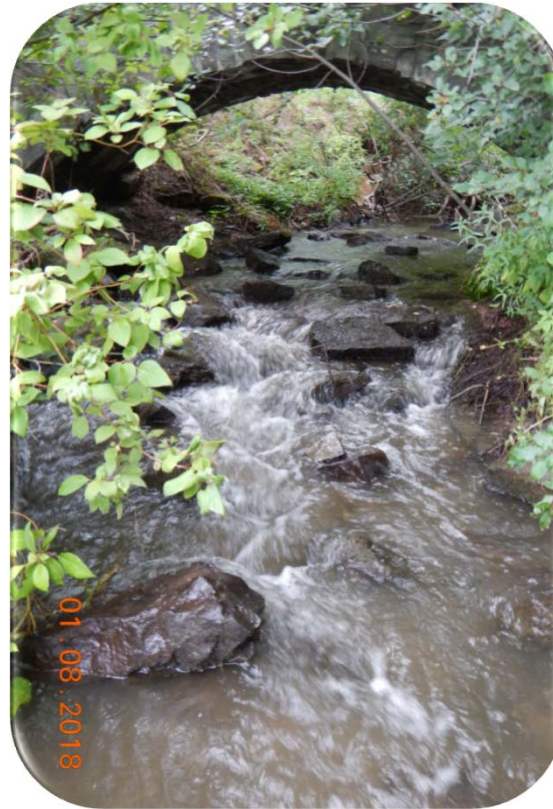
Restoring Stream Connectivity – WES Projects

Before



Shield's Creek
Andy Shield's Park
Greely

After



- Simple movement of boulders achieves improved fish passage
- Funding support from Water Environment Strategy, City of Ottawa



Leitrim Wetland Restoration



Breached watercourse dam
Leitrim Wetland

- Series of dams built in 1991 along east-west ditch are all breached
- SNC will work to re-block the dams and restore more natural hydrology to the wetland



Delta Waterfowl- First Hunt



First Hunt Program Participants- SNC Office

- 10 Youth between ages 12-15
- Courses completed in August
- First Hunt Weekend: September 29-30



Delta Waterfowl



Hen House- SNC 7 Ponds

- Installation of 20 Hen Houses on 2 SNC properties
- Monitoring to occur winter of 2018-2019
- Province wide project with Delta Waterfowl

Our Local Environment, We're in it Together.



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Clarence Creek and Cobb's Lake Creek Monitoring Report

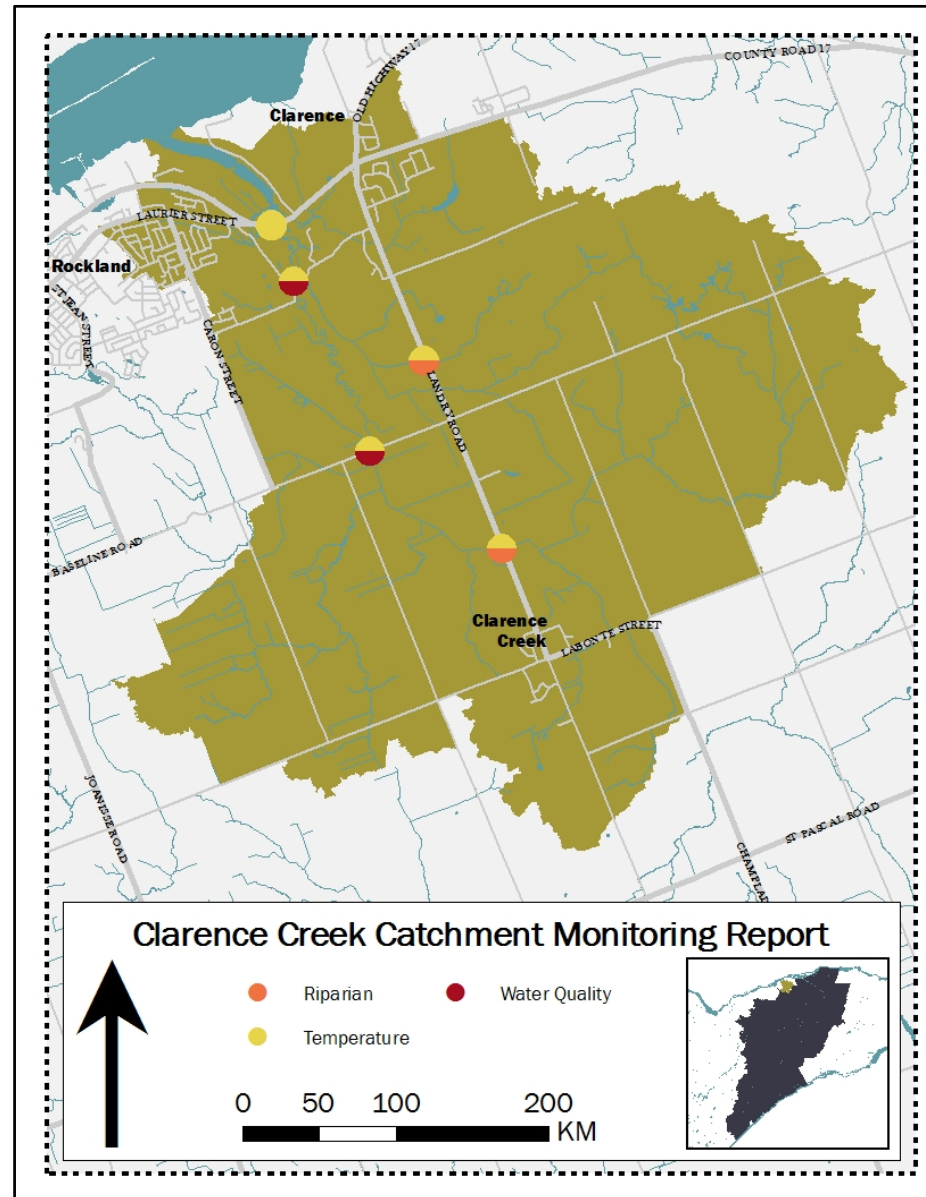
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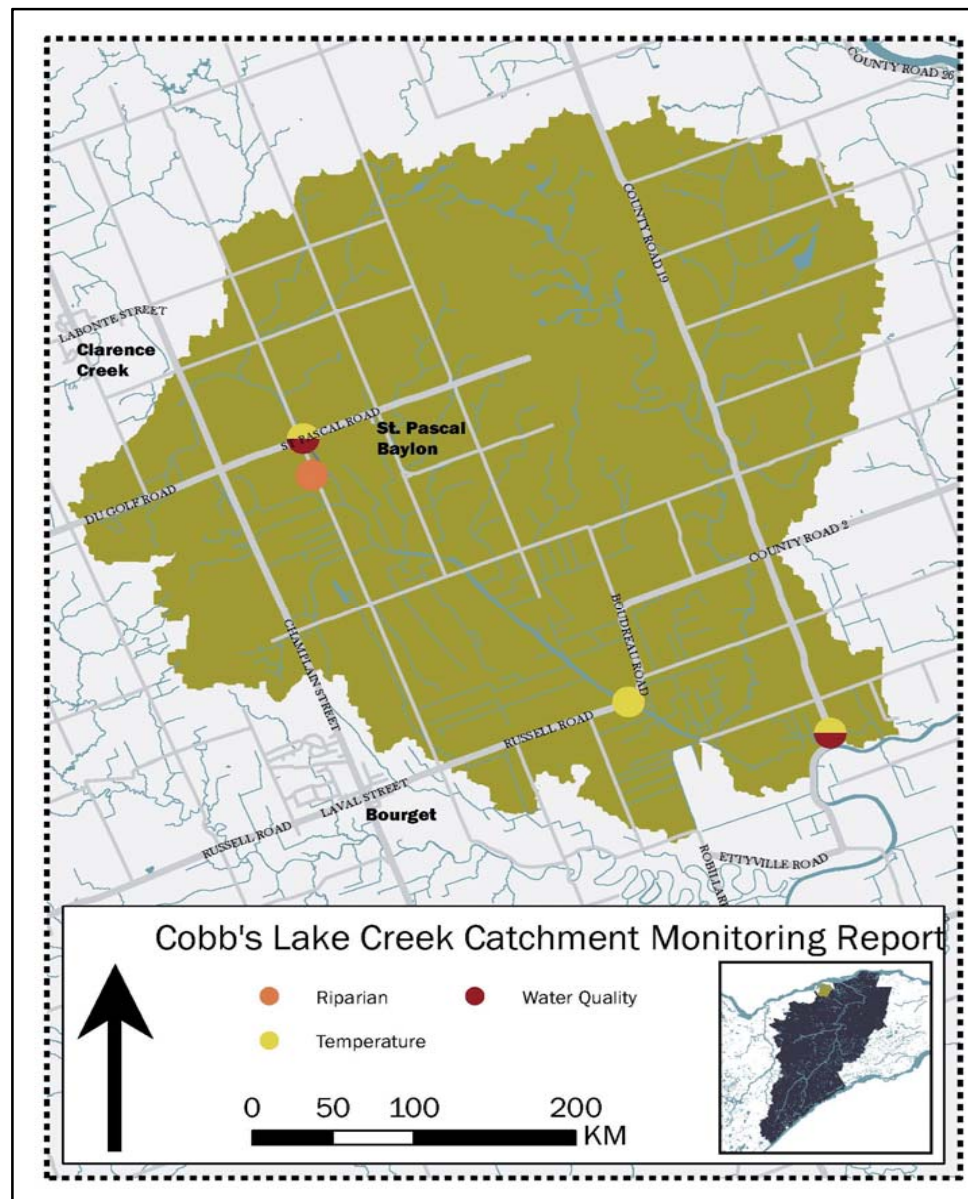


Clarence Creek Catchment





Cobb's Lake Creek Catchment





Monitoring Activities



Deploying the YSI Sonde Unit in Clarence Creek

- PWQMN Water Quality Monitoring
- Deployment of continuous sensors:
 - Temperature
 - Dissolved Oxygen
 - YSI Sonde Unit
- Bioassessments



Water Quality in Cobb's Lake Creek

Cobb's Lake Creek at CR 18	75th Percentile	Guideline Value	Number of Obs.	Number of Exceedances	Percentage of Exceedances
TP (mg/L)	0.21	0.03	40	40	100%
Nitrate (mg/L)	2.65	3	28	4	14%
Chloride (mg/L)	88	120	33	0	0%
Iron (mg/L)	1.90	0.30	40	40	100%
Zinc (mg/L)	0.017	0.020	37	4	11%



Thermal Classifications

Stream	Road Crossing	Thermal Classification
Tributary of Clarence Creek	Landry Road (Figure 3)	Cool-Warm
Clarence Creek	Landry Road (Figure 4)	Cool
Clarence Creek	Baseline Road (Figure 5)	Cool-Warm
Clarence Creek	Tucker Road (Figure 6)	Cool-Warm
Clarence Creek	County Road 17 (Figure 7)	Cool
Cobb's Lake Creek	Pascal Road	Not available – sensor lost
Cobb's Lake Creek	County Road 8 (Figure 8)	Warm
Cobb's Lake Creek	County Road 18 (Figure 9)	Cool-Warm



Dissolved Oxygen

Monitoring Location	WARM WATER		COLD WATER	
	% of time < 5.5 mg/L DO (other life stages)	% of time < 6.0 mg/L DO (early life stages)	% of time < 6.5 mg/L DO (other life stages)	% of time < 9.5 mg/L DO (early life stages)
Clarence Creek at Tucker Road	14%	15%	18%	94%
Clarence Creek at Baseline Road	25%	33%	42%	78%
Cobb's Lake Creek at Pascal Road	57%	69%	76%	89%



Riparian Plantings



Cobb's Lake Creek near Pascal Road

Monitoring data collected in 2017 assisted targeting of 3 riparian plantings:

- Tributary of Clarence Creek at Landry Road
- Clarence Creek at Landry Road
- Cobb's Lake Creek at Pascal Road